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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,376	09/29/2003	Peter Dickey	249212023500	6858

25226 7590 03/23/2006

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EXAMINER

LOWE, MICHAEL S

ART UNIT	PAPER NUMBER
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3652

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/675,376

Applicant(s)

DICKEY ET AL.

Examiner

M. Scott Lowe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 19-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/8/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election/Restrictions

Claims 19-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 2/15/06.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the movements of the carriages as claimed in claims 1-6 and claims 10-12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to because the z-axis motor (page 7, paragraph [0029] is not on the drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 6 is objected to because of the following informalities: Applicant states that the cartridge retrieving mechanism extends "about" the fourth axis. It is unclear what is meant by "about" since the current drawing appear to show the extension being linear and perpendicular to the fourth axis. For sake of examination it is assumed the drawings are correct on this subject and "about" was meant to be "perpendicular to". Appropriate correction is required.

Claim 10 is objected to because of the following informalities: Applicant claims a first, second and third carriage but only mentions one carriage 137 in the specification. For sake of examination it is assumed applicant meant for carriage to mean the assemblies 150,500,600 and/or 700. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7,10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "the vertical support member" in line 5. There is insufficient antecedent basis for this limitation in the claim. For sake of examination it is assumed applicant meant "the stationary support member" instead.

Claim 10 recites the limitation "the vertical support member" in line 5. There is insufficient antecedent basis for this limitation in the claim. For sake of examination it is assumed applicant meant "the stationary support member" instead.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2 are rejected under 35 U.S.C. 102(b) as being anticipated by Kraye (US 5,548,521).

Re claim 1, Kraye teaches a storage library system 10, comprising:
a stationary support member 14 having a first axis (figure 1); and
a cartridge transport assembly (16,28,etc.), comprising:
a cartridge retrieving mechanism (16,28,etc.) configured to retrieve a removable media cartridge 24, said cartridge transport assembly (16,28,etc.) being coupled to the support member 14, wherein the cartridge retrieving mechanism is positionable in four degrees of freedom (column 10, lines 31-35).

Re claim 2, Kraye teaches (column 10, lines 31-35) a first degree of freedom of the cartridge retrieving mechanism comprises linear movement along the stationary support member 14.

Claim Rejections - 35 USC § 102/103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-7, 10-14, 18 are rejected under 35 U.S.C. 102(b) as anticipated by Krayner (US 5,548,521) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Krayner (US 5,548,521) in view of Panissidi (US 4,229,136).

Re claim 3, Krayner teaches (figure 1, column 10, lines 31-35) a second degree of freedom of the cartridge retrieving mechanism comprises linear movement along a second axis (figure 1) approximately orthogonal to the first axis. If it is determined that Krayner does not teach linear movement along a second axis approximately orthogonal to the first axis, Panissidi teaches that it is known to have a manipulator (part above base of 16 of Krayner) to move in mutually orthogonal, linear x-y-z axes. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Krayner by the general teaching of Panissidi to move in mutually orthogonal, linear x-y-z axes for flexibility in getting the cartridges from various different locations.

Re claim 4, Krayner teaches a third degree of freedom (figure 1, column 10, lines 31-35) of the cartridge retrieving mechanism comprises linear movement along a third axis approximately orthogonal to the first axis and the second axis. If it is determined that Krayner does not teach linear movement along a third axis approximately orthogonal

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to the first axis and the second axis, Panissidi teaches that it is known to have a manipulator (part above base of 16 of Kraye) to move in mutually orthogonal, linear x-y-z axes. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kraye by the general teaching of Panissidi to move in mutually orthogonal, linear x-y-z axes for flexibility in getting the cartridges from various different locations.

Re claim 5, Kraye teaches (figure 1, column 10, lines 31-35) a fourth degree of freedom of the cartridge retrieving mechanism comprises rotational movement about a fourth axis.

Re claim 6, Kraye teaches (figure 1, column 10, lines 31-35) a fifth degree of freedom of the cartridge retrieving mechanism comprising radial extension of the cartridge retrieving mechanism about the fourth axis. If it is determined that Kraye does not teach radial extension of the cartridge retrieving mechanism about the fourth axis, Panissidi teaches that it is known to have a manipulator (part above base of 16 of Kraye) to move in mutually orthogonal, linear x-y-z axes and to have rotational movement about each of these axes. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kraye by the general teaching of Panissidi to have radial extension of the cartridge retrieving mechanism about the fourth axis for flexibility in getting the cartridges from various different locations.

Re claim 7, Kraye teaches (figures 1,2) an enclosure having a first side wall, an opposing second side wall, and a back wall adjacent to the first and second side walls;

a cavity region between the first side wall, the second side wall, and the back wall, the stationary support member and the cartridge transport assembly being positioned in the cavity region.

Re claim 10, Krayer teaches (figure 1, column 10, lines 31-35) a storage library system, comprising:

a stationary support member 14 having a first axis;

a cartridge transport assembly (16,28,etc.) coupled to the stationary support member 14, the cartridge transport assembly comprising:

a first carriage 16 coupled to the stationary support member 14;

a first actuator (not numbered) coupled to the first carriage and the stationary support member 14 configured to actuate linear movement of the first carriage along the stationary support member;

a second carriage (not numbered, figure 1) movably coupled to the first carriage;

a second actuator (not numbered, figure 1) engaging the first and second carriages configured to actuate linear movement of the second carriage along a second axis non-parallel to the first axis;

a third carriage (not numbered, figure 1) movably coupled to the second carriage;

a third actuator (not numbered, figure 1) engaging the second and third carriages configured to actuate linear movement of the third carriage along a third axis non-parallel to the first axis and the second axis; and

a cartridge retrieval mechanism (16,28,etc.) coupled to the third carriage.

If it is determined that Krayer does not teach the second and third carriages and actuators moving as claimed, Panissidi teaches that it is known to have a manipulator (part above base of 16 of Krayer) to move in mutually orthogonal, linear x-y-z axes and to have rotational movement about each of these axes. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Krayer by the general teaching of Panissidi to have the second carriage (not numbered) movably coupled to the first carriage, the second actuator (not numbered) engaging the first and second carriages and configured to actuate linear movement of the second carriage along a second axis non-parallel to the first axis, the third carriage (not numbered) movably coupled to the second carriage, and the third actuator (not numbered) engaging the second and third carriages configured to actuate linear movement of the third carriage along a third axis non-parallel to the first axis and the second axis for flexibility in getting the cartridges from various different locations.

Re claim 11, Krayer teaches (figure 1, column 10, lines 31-35) a rotary actuator engaging the third carriage and the cartridge retrieval mechanism configured to actuate rotational movement of the cartridge retrieval mechanism.

Re claim 12, Krayer teaches (figure 1, column 10, lines 31-35) an extension actuator (not numbered) coupled to the carriage retrieval mechanism (16,28,etc.) configured to extend the cartridge retrieval mechanism to retrieve a cartridge 24 from a storage bin 12 in the storage library system.

Re claim 13, Kraye teaches (figure 2, column 10, lines 31-35,54-59) a robotics controller 52,54 for controlling the first, second, third, rotary, and extension actuators, and the cartridge retrieval mechanism.

Re claim 14, Kraye teaches (figure 2, column 10, lines 31-35,54-59) a library controller 52,54 and an umbilical connection coupling the library controller with the cartridge transport assembly.

Re claim 18, Kraye teaches the support member 14 positioned approximately vertically.

Claims 8,9 are rejected under 35 U.S.C. 103(a) as obvious over Kraye (US 5,548,521) in view of Panissidi (US 4,229,136) as applied to claim 7, and further in view of Hakenewerth (US 5,183,999).

Re claim 8, Kraye does not teach the plurality of storage bins 12,22 disposed on the first and second side walls. However, Hakenewerth teaches it is known to place storage and process items on different walls. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kraye by the general teaching of Hakenewerth to place storage bins on the first and second side walls for aesthetic reasons and to maximize use of available space.

Re claim 9, Kraye does not teach the tape drives 20a-c disposed on the back wall. However, Hakenewerth teaches it is known to place storage and process items on different walls. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kraye by the general teaching of

Hakenewerth to place the tape drives on the back wall for aesthetic reasons and to maximize use of available space.

Claim 15 is rejected under 35 U.S.C. 103(a) as obvious over Kraye (US 5,548,521) in view of Panissidi (US 4,229,136) as applied to claim 10, and further in view of Hanaki (US 6,483,204).

Re claim 15, Kraye teaches a library controller 52,54 and an umbilical connection coupling the library controller with the cartridge transport assembly but is silent regarding whether the umbilical connection is a cable and regarding a power supply coupled to the umbilical cable for receiving power at a first voltage, the power supply configured to convert the power at the first voltage to a plurality of different voltages. Hanaki teaches (figures 1,2, columns 11 & 12) it is known to use umbilical cables coupled to a main controller's power supply for receiving power at a first voltage, the power supply configured to convert the power at the first voltage to a plurality of different voltages in order to optimize power distribution. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kraye by Hanaki to use umbilical cables coupled to a main controller's power supply for receiving power at a first voltage, the power supply configured to convert the power at the first voltage to a plurality of different voltages in order to optimize power distribution.

Claims 16,17 are rejected under 35 U.S.C. 103(a) as obvious over Kraye (US 5,548,521) in view of Panissidi (US 4,229,136) as applied to claim 10, and further in view of Hakenewerth (US 5,183,999).

Re claim 16, Kraye does not teach the plurality of storage bins 12,22 disposed on the first and second side walls. However, Hakenewerth teaches it is known to place storage and process items on different walls. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kraye by the general teaching of Hakenewerth to place storage bins on the first and second side walls for aesthetic reasons and to maximize use of available space.

Re claim 17, Kraye does not teach the tape drives 20a-c disposed on the back wall. However, Hakenewerth teaches it is known to place storage and process items on different walls. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kraye by the general teaching of Hakenewerth to place the tape drives on the back wall for aesthetic reasons and to maximize use of available space.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lechner (US 6,564,290)

Nakagomi (US 6,094,322)

Burch (US 3,746,189)

Wagner (US 5,043,962)

Baur (US 5,015,139)

Isaacs (US 6,135,697)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Scott Lowe whose telephone number is (571) 272-6929. The examiner can normally be reached on 6:30am-4:30pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

msl



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